Reviewer's report

Title: Quality assessment of systematic reviews on total hip or knee arthroplasty using mod-AMSTAR

Version: 0 Date: 14 Jul 2017

Reviewer: Dawid Pieper

Reviewer's report:

Abstract:
- it is unclear which coefficient is meant, please be more precise

- I don’t understand the conclusion. The whole results section is about methodological quality. So why do you refer to PRISMA (reporting quality) in the conclusions?

Introduction:


- "From 2005 to 2015, there was..." this needs to be referenced

- it is important that you already make a differentiation between methodological quality and reporting quality in the introduction (and all forthcoming sections)

- do not use mAMSTAR in the introduction section, it should only be introduced in the methods section

Methods:

- please state there this review has been planned a prori/registered

- please provide a definition of a SR/MA you have used

- it is not clear whether you have only focused on intervention reviews. This is important as AMSTAR has been originally developed for SRs or RCTs
- what is the rationale for only including the last two years (i.e. 2014-2015). This is quite uncommon, why not the last 5 years?

- the literature search was not conducted from January 2014 to December 2015, this is only time span for inclusion of your articles

- as you refer to the PRISMA guideline, I would recommend that you follow it themselves. For example, it is not reported how the study selection was performed

- "AMSTAR is a freely accessible validated tool for assessing the methodological quality of MA" - please revise this statement to SR instead of MA

- when referring to AMSTAR please make sure that you cite the original papers. Reference 15 where you refer to the summary score is not an original AMSTAR paper. I believe that the summary score was not mentioned in the AMSTAR development paper by Sheal et al. 2007 at all.

- you state that "Our study did not change the total score and the methodological quality of the reviews was graded as high (8-11), medium (4-7) and low (0-3) quality" but it is unclear how this was calculated

- you are talking about Chinese journals and English journals. I guess you mean publications in that language

- you need to expand a bit more on the statistical analysis

Results:

- inter-rater reliability instead of reliability, and please be more concrete on you measure, do you mean Cohens kappa?

- some more descriptive characteristics would be helpful for the reader. In particular, are all reviews interventional?
- you state "The overall median score for all 63 included reviews was 6.366±1.225". However, the ± implicates that this is a standard deviation. But this makes only sense together with a mean (not median) score!

- "In general, included reviews displayed better" -- better than what?

- how did you derive the 16 bibliographical characteristics? please amend in the method section

- where did you search for the impact factor? Is it the IF of a given year or of the corresponding year of publication?

Discussion:

- please put your results into the context of other results investigating methodological quality of SRs. I don’t think the results of TKA/THA are worse or better than in other fields.

- you are talking about KEY quality item - how do you define this? Providing the list of excluded primary studies is not a key quality item, in my opinion

- in general, I think the discussion (that is well structured) can much more refer to published studies investigating the methodological quality of SRs in other fields.

- I would be more cautious recommending a tool for observational studies such as the NOS. The authors did not investigate this. Furthermore, the NOS has also been criticized for content (https://www.ncbi.nlm.nih.gov/pubmed/20652370), and inter-rater reliability (https://www.ncbi.nlm.nih.gov/pubmed/20652370)

- one of the main results refers to "Reviews included literatures with English and other languages and reviews declared conflicts of interest displayed better than who did not report (7.00 vs 5.71, P=0.04; 7.37 versus 5.67, p=0.033)." However, the authors give no explanation for this finding. This leaves me with the question whether this is a relevant finding or just due to chance?

- I would refrain from stating that AMSTAR has been proven to be reliable and valid as you have revised the original AMSTAR heavily!
- the section limitations and strengths needs a thorough revision

Although I am not a native speaker, I feel that the manuscript would benefit from language editing by a native English speaker

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published
Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests'

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal